

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-10. (Cancelled)

11-21. (Cancelled)

22-25. (Cancelled)

26. (Currently amended) A composition for fabricating phase-change material microcapsules, comprising:

a waterborne polyurethane aqueous solution, wherein the ~~weight-ratio~~ concentration of the waterborne polyurethane aqueous solution is 5% to 40 % by weight ~~over the composition is 0.05—0.40;~~

a phase-change material having a polar functional group and a lipophilic moiety;

a lipophilic monomer dissolved in the phase-change material, wherein the ~~weight ratio~~ concentration of the lipophilic monomer ~~over in~~ in the phase-change material is between about 3% and about 12% by weight and the lipophilic monomer over the waterborne polyurethane is 0.03—0.12 and between about 25% and about 50% 0.25—0.5, respectively, and the lipophilic monomer is isocyanurate of 1,6-hexamethylene diisocyanate, which can react with the waterborne polyurethane to form shells of the microcapsules; and

a solid wax.

27. (Previously presented) The composition of claim 26, wherein the phase-change material is a carboxylic ester.

28. (Previously presented) The composition of claim 27, wherein a carboxylate of the carboxylic ester is selected from a group consisting of formate, acetate and propionate.

29. (Previously presented) The composition of claim 27, wherein carbon atom number of an alkoxy group of the carboxylic ester is between 10 and 18.

30. (Currently amended) The composition of claim 26, wherein the concentration of the waterborne polyurethane aqueous solution is between about 15% and 35% by weight, wherein the weight ratio of the waterborne polyurethane over the composition is 0.10—0.30.

31. (Currently amended) The composition of claim 26, wherein the concentration of the lipophilic monomer in the phase-change material is between about 5% and about 10% by weight, wherein the weight ratio of the lipophilic monomer over the phase-change material is 0.05—0.10.

32. (Previously presented and amended) The composition of claim 26, wherein the lipophilic monomer over the waterborne polyurethane is between about 30% and

~~about 45%, wherein the weight ratio of the lipophilic monomer over the waterborne polyurethane is 0.30—0.45.~~

33. (Previously presented) The composition of claim 26, wherein a monomer of the waterborne polyurethane comprises 2,2-bis (hydroxymethyl) propionic acid.

34. (Previously presented) The composition of claim 26, wherein a chain extender used to prepare the waterborne polyurethane comprises diamine containing a sulfonate functional group.